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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/474,191	12/29/1999	TADAO MORISHITA	49376(868)	1975

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EXAMINER

CHANG, JON CARLTON

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 10/03/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/474,191

Applicant(s)

MORISHITA, TADAO

Examiner

Jon Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 7 is/are rejected.
- 7) ☒ Claim(s) 2,4 and 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

Comment Regarding Information Disclosure Statement

1. Reference CC on the PTO-1449 provided with the Information Disclosure Statement filed April 4, 2000, has been lined out so that the information is not printed on any patent issuing from the current application.

Claim Rejections - 35 USC § 112

2. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 7, at line 2, "the user" lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily

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published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,088,468 to Ito et al. (hereinafter "Ito").

As to claim 1, Ito discloses an image processing apparatus comprising at least:
input means for carrying out a distribution process of image information inputted through an image input mechanism (Fig.1, element 11; Fig.12 element 123);
storing means for storing an image inputted through the input means (fig.12, element 124; column 3, lines 9-10);
comparing means for comparing an image inputted through the input means with an image stored in the storing means (column 3, lines 11-12); and
output means for outputting a result of comparison by the comparing means (Fig.12, elements 129, 131),
wherein the comparing means includes calculating means for calculating a difference in pixel values which represent pixel densities, between an image newly inputted through the input means and an image stored in the storing means (column 3, line 13), and
recognizing means for recognizing a portion common to images by comparing an output of the calculating means with a preset threshold value (column 3, lines 13-15; background is the portion common to the both images).

As to claim 5, Ito discloses the image processing apparatus of claim 1, wherein the comparing means includes eliminating means for causing, when the difference in

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pixel values calculated by the calculating means is equal to or less than the threshold value, the output means to output the inputted image and the stored image as two images, while preventing a pixel of which the difference in pixel values is equal to or less than the threshold value, from being outputted into the respective images (note the right side of Fig.9D results from the binarization of the difference between the background image in Fig.9A and the input image on the left side of Fig.9D). Where there are common portions, (i.e., when the difference is less than or equal to the threshold), the pixels are not outputted such that the background is eliminated.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito.

With regard to claim 3, Ito does not explicitly disclose that at least three or more kinds of image information are sequentially inputted to the input means. However, Ito's invention utilizes a TV camera (column 8, lines 15-17). TV cameras generally take a plurality of image frames. It would have been obvious to one of ordinary skill in the art to input three or more images in Ito's invention since TV cameras generally take several image frames when used. Further, it would have been obvious to utilize Ito's invention

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to process several images, not only one. Otherwise, it would be somewhat useless as an apparatus for sensing objects. Note also the input of three images is implied by Figures 9B, 9D and 9E. In processing additional input images, the output means would replace an image outputted from the comparing means with an image stored in the storing means, and the recognizing means would recognize a portion common to an image newly inputted through the input means and the image stored in the storing means by comparing the images (in other words, the same processing previously discussed would be repeated for the other input images).

With regard to claim 7, Ito discloses that the threshold value is predetermined (column 3, line 14), and can be changed (column 5, line 33). Ito does not explicitly disclose setting means for allowing a user to set the threshold value. The Examiner takes Official Notice that setting means for allowing a user to set a threshold value is well known. It would have been obvious to one of ordinary skill in the art to provide a setting means to allow a user to set the threshold value because this would provide the advantage of a permitting the predetermined threshold value to be inputted to achieve a desired result from the processing.

Allowable Subject Matter

8. Claims 2, 4 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art Citation

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,182,656 to Chevion et al. teaches subtracting an image of an empty form from an image of a filled-in form prior to compression.

U.S. Patent 5,914,748 to Parulski et al. discloses generating a composite image using the difference of two images.


U.S. Patent 6,167,167 to Matsugu et al. teaches calculating the absolute value of the difference between two images and outputs a 1 or 0 at pixel positions depending on how the difference values compares to a threshold.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.


Jon Chang
Primary Examiner
Art Unit 2623

Jon Chang
September 30, 2002